

LISTING OF THE CLAIMS

A complete listing of the claims is provided below. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Original) A backflow preventor assembly comprising:

first and second backflow preventor valves;

a housing encompassing said first and second backflow preventor valves, such that both of said valves automatically close if flow through said backflow preventor assembly drops below a predetermined value, said housing including an inlet opening defining an inlet flow direction, an outlet defining an outlet flow direction and a conduit providing fluid communication between said first and second backflow preventor valves.

wherein at least a first portion of said conduit is movable with respect to a second portion of said conduit to permit a change in said outlet flow direction with respect to said inlet flow direction.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (New) A backflow preventor apparatus for connection to parallel, oppositely-flowing inlet and outlet conduits, comprising:

a first housing having a first valve and connected to the inlet conduit via a first flange, said first valve mounted in said first housing so that it is positioned generally parallel to the inlet conduit, said first valve movable between an opened position and a closed position; and

a second housing connected to said first housing and the fluid outlet via a second flange, having a second valve positioned at an angle approximately 90 degrees to the inlet, said second valve movable between an opened position and a closed position,

wherein the flow of fluid has an average streamline path between the inlet conduit and the outlet conduit, wherein the sum of changes in flow direction of said average streamline path is approximately 180 degrees.

11. (New) The apparatus according to claim 10, wherein said first valve and said second valve are positioned at 90 degree angle to one another.

12. (New) The apparatus according to claim 10, wherein said flanges include holes for accommodating bolts for coupling to the inlet and outlet conduits.

13. (New) A backflow preventor apparatus for connection to parallel, oppositely-flowing inlet and outlet conduits, comprising:

a first housing having a first valve and connected to the inlet conduit via a first flange, said first valve mounted in said first housing so that it is positioned generally parallel to the inlet conduit, said first valve movable between an opened position and a closed position; and

a second housing connected to said first housing and the fluid outlet via a second flange, having a second valve positioned at an angle approximately 90 degrees to the inlet, said second valve movable between an opened position and a closed position; and

a conduit, extending between and coupled to said first housing and said second housing,

wherein the flow of fluid has an average streamline path between the inlet conduit and the outlet conduit, wherein the sum of changes in flow direction of said average streamline path is approximately 180 degrees.

14. (New) The apparatus according to claim 13, wherein at least a portion of said conduit is downward sloping.

15. (New) The apparatus according to claim 13, said first valve and said second valve are positioned at 90 degree angle to one another.

16. (New) A backflow preventor apparatus for connection to parallel, oppositely-flowing inlet and outlet conduits, comprising:

a first housing having a first valve and connected to the inlet conduit, said first valve mounted in said first housing so that it is positioned generally parallel to the inlet conduit, said first valve movable between an opened position and a closed position;

a second housing connected to the fluid outlet having a second valve positioned at an angle approximately 90 degrees to the inlet, said second valve movable between an opened position and a closed position; and

a third valve in fluid communication with said first housing that controls the flow of fluid into said first housing,

wherein the flow of fluid has an average streamline path between the inlet conduit and the outlet conduit, wherein the sum of changes in flow direction of said average streamline path is approximately 180 degrees.

17. (New) The apparatus according to claim 16, wherein said first valve and said second valve are positioned at 90 degree angle to one another.

18. (New) An apparatus, as claimed in claim 16, wherein said first valve is positioned at a higher elevation than said third valve.

19. (New) An apparatus, as claimed in claim 16, further comprising a first handle for operating said third valve, said first handle extending horizontally in a direction perpendicular to a line connecting the inlet and outlet conduits.

20. (New) An apparatus, as claimed in claim 16, further comprising a fourth valve in fluid communication with said second housing that controls the flow of fluid out of said second housing.

21. (New) An apparatus, as claimed in claim 20, wherein said second valve is positioned at a higher elevation than said fourth valve.

22. (New) An apparatus, as claimed in claim 20, further comprising a second handle for operating said fourth valve, said second handle extending horizontally in a direction perpendicular to a line connecting said inlet and outlet conduits.

23. (New) A backflow preventor apparatus for connection to parallel, oppositely-flowing inlet and outlet conduits each having longitudinal axes, comprising:

- a housing configured to accommodate first and second valves, and to receive fluid flow from said inlet conduit;

- a first valve mounted in said housing having a seatable valve disc having an edge, moveable between a closed configuration preventing flow and an open configuration permitting flow through a first inlet port in a first direction, said first valve mounted to extend generally parallel to the longitudinal axis of the inlet conduit; and

- a second valve mounted in said housing having a seatable valve disc having an edge, movable between a closed configuration preventing flow and an open configuration permitting flow through a second inlet port in a second direction, said second valve mounted at angle

approximately 90 degrees to the longitudinal axis of the outlet conduit, said axis of mounting of said second valve being substantially perpendicular to said axis of mounting of said first valve;

said fluid flow having an average streamline path between said inlet and said outlet conduit, wherein the sum of changes in flow direction of said average streamline path is not substantially greater than about 180 degrees,

further comprising a first flange for coupling to said inlet conduit and a second flange for coupling to said outlet conduit.